2018 CANNABINOIDS IN MEDICINE

A CE PROGRAM

PROGRAM PROSPECTUS

APRIL 28, 2018
LOS ANGELES, CALIFORNIA

JOINTLY PROVIDED
BY POSTGRADUATE INSTITUTE FOR MEDICINE
AND NANO LIFE SCIENCE INC.

2018 Cannabinoids in Medicine A CE Program

PROGRAM OVERVIEW

In the first-ever of its kind, the 2018 Cannabinoids in Medicine, a CE-accredited conference, will bring together inspirational leaders in the medical community to discuss the data behind the therapeutic use of, and future applications for, cannabinoids in treatment of various chronic diseases. The program will feature key thought leaders in the field who will discuss recent evidence from clinical trials, share insights and strategies for successful use of cannabinoids in practice, as well as lead interactive Q&A sessions.

FACULTY

Harin Padma-Nathan MD, FRCS

Chairman
CEO, Nano Life Science Inc.
Prior-Professor of Clinical Urology, Keck School of Medicine, University of Southern California

Donald Abrams MD

Professor of Clinical Medicine, University of California, San Francisco
Chief of Hematology / Oncology, San Francisco General Hospital
Integrative Oncologist, University of California San Francisco Osher Center for Integrative Medicine

Heather Bradshaw PhD

Associate Professor, Department of Psychological and Brain Sciences, Program in Neuroscience, Indiana University

Ziva Cooper PhD

Associate Professor of Clinical Neurobiology, Department of Psychiatry, Columbia University Medical Center

Shaun Hussain MD, MS

Director, UCLA Infantile Spasms Program
Assistant Professor of Pediatrics, David Geffen School of Medicine, University of California, Los Angeles

David Kessler MD

Former Commissioner, U.S. Food and Drug Administration
Professor of Pediatrics, Epidemiology and Biostatistics, University of California, San Francisco

Daniele Piomelli MD, PhD

Director, UCI Institute for the Study of Cannabis, Louise Turner Arnold Chair in the Neurosciences, University of California, Irvine
Professor of Anatomy and Neurobiology, Pharmacology and Biological Chemistry, University of California, Irvine

Vijayshree Yadav MD

Associate Professor of Neurology, Oregon Health & Science University, School of Medicine

MEETING SNAPSHOT

PROGRAM	2018 Cannabinoids in Medicine
DATE	April 28, 2018
LOCATION	Jonathan Club 545 S. Figueroa St. Los Angeles, CA 90071
WEBSITE	cannabinoidsinmedicine.org
AUDIENCE	Neurologists, Oncologists, Pain Specialists, Psychiatrists & Registered Nurses
CREDITS	7.0 CE Hours

CONFERENCE PARTNERS

Postgraduate Institute for Medicine
CE Provider

Nano Life Science Inc.
Educational Partner

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Background, Gaps & Goals

CANNABINOIDS FACTS

29 states, the District of Columbia, Guam and Puerto Rico now have legalized cannabis for the treatment of specific medical conditions[1]

There is conclusive or substantial evidence that cannabis or cannabinoids are effective[2]:

- For treatment of chronic pain in adults
- As antiemetics in treatment of chemotherapy-induced nausea and vomiting
- For improving patient-reported multiple sclerosis spasticity symptoms
- Select seizure disorders

There is moderate evidence that cannabis or cannabinoids are effective for improving short-term sleep outcomes in individuals with sleep disturbances associated with[2]:

- Obstructive sleep apnea syndrome
- Fibromyalgia
- Chronic pain
- Multiple sclerosis

Yet most physicians are *not* familiar with the recent scientific evidence supporting these now known therapeutic benefits of cannabinoids

PROFESSIONAL PERFORMANCE GAPS

The topic of cannabinoids in medicine is fraught with non-scientific approaches and anecdotal data. However, the recent *Academies of Science, Engineering and Medicine* report on the evidence for efficacy in a number of areas and the advent of clinical development programs utilizing randomized controlled studies affords a new perspective on the therapeutic value of this broad group of compounds.

Unfortunately, practicing clinicians are generally unaware of these scientific reviews, and must differentiate them from the broader non-science data being utilized by non-healthcare providers (non-HCPs). Thus, the emergence of new practice-changing data at a scientific meeting may result in an immediate professional performance gap between the best evidence-based practices in patient management and current practices of most HCPs. As such, this highly scientific meeting is designed to meet the need of educating HCPs on newer cannabinoid research and evidenced-based reviews examining the efficacy and safety of cannabinoids, particularly the non-psychotropic cannabinoid CBD, in the management of chronic pain, multiple sclerosis (MS), oncology / chemotherapy-induced nausea and vomiting, seizure disorders, post-traumatic stress disorder (PTSD), AIDS, glaucoma, and specific sleep disorders. To this end, the CE program goals are to improve knowledge of, competence with, and performance involving, the use of cannabinoids in these therapeutic areas.

Further, while most clinicians are not actively prescribing cannabinoids, excluding those managing MS, pain, chemotherapy-nausea and AIDS-related wasting, many compounds are awaiting FDA approval for specific patient populations that are currently under their care, representing a second professional performance gap. Therefore, the content of this program will be designed to enable them to anticipate the utilization of specific cannabinoids in clinical practice based on approved regimes and dosing, rather than utilize the currently available concoctions available to the public, and will also lay a foundation for understanding these compounds from a pharmacological perspective by understanding the underlying basic science. To this end, the CE program goals are also to improve knowledge of, and competence with, the current and future uses of cannabinoids.

EDUCATIONAL & LEARNING OBJECTIVES

Identify

aspects of the endocannabinoid system that lend itself to regulation, amplification or modification in targeting therapeutic applications

Translate

the recent report from the Academies of Science, Engineering and Medicine1 into a stratification of therapeutic targets currently with high, medium and low levels of evidence for efficacy and safety

Differentiate

cannabinoids that are approved for clinical use or in clinical development by pharmacological properties and actions

Distinguish

cannabidiol from the psychoactive cannabinoids and its evidence to date with respect to evidence in randomized clinical trials in neurological disorders, and construct clinical plans for utilization in specific seizure disorders upon FDA approvals

Construct

treatment paradigms for Multiple Sclerosis spasticity with cannabinoids based on American Academy of Neurology guidelines and emerging evidence

Apply

the level of evidence, clinical trial constructs and data for utilization of cannabinoids in AIDS, oncology / chemotherapy, PTSD, glaucoma, sleep disorders, fibromyalgia and chronic pain

1 NCSL (National Conference of State Legislatures). 2017. State medical marijuana laws. http://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx (accessed October 10, 2017). **2** National Academies of Sciences, Engineering, and Medicine. 2017. *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research.* Washington, DC: The National Academies Press. https://doi.org/10.17226/24625.

Program Agenda

8:30-8:45am	**Overview Session** Unmet Educational Needs Program Objectives	**Harin Padma-Nathan, MD, FRCS** *Nano Life Science Inc.*
8:45-9:30am	**Cannabinoid Background and Basics** Cannabinoid Pharmacology Endogenous Cannabinoid Signaling	**Heather Bradshaw, PhD** *Indiana University*
9:30-10:15am	**Translational Cannabinoid Science**	**Daniele Piomelli, MD, PhD** *UCI School of Medicine*
10:15-10:30am	**Panel Q&A**	**Heather Bradshaw, PhD** *Indiana University* **Daniele Piomelli, MD, PhD** *UCI School of Medicine*
10:30-10:45am	Coffee Break	
10:45-11:35am	**National Academies of Sciences, Engineering, and Medicine 2017 Report:** The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research **Cannabinoids: Pain Management and Opioid Reduction, Chemotherapy-Induced Nausea and Sickle Cell Disease**	**Donald Abrams, MD** *UCSF School of Medicine*
11:35-12:00pm	**Panel Q&A**	**Donald Abrams, MD** *UCSF School of Medicine* **David Kessler, MD** *Former FDA Commissioner, UCSF School of Medicine* **Ziva Cooper, PhD** *Columbia University*
12:00-1:00pm	Lunch	
1:00-1:45pm	**Cannabidiol and Epilepsy: Facts and Fiction** Recent Research Review Clinical Implications	**Shaun Hussain, MD, MS** *David Geffen School of Medicine, UCLA*
1:45-2:30pm	**Cannabinoids: Multiple Sclerosis and Spasticity** Recent Research Review American Academy of Neurology Guidelines	**Vijayshree Yadav, MD** *Oregon Health & Science University, School of Medicine*
2:30-2:45pm	**Panel Q&A**	**Shaun Hussain, MD, MS** *David Geffen School of Medicine, UCLA* **Vijayshree Yadav, MD** *Oregon Health & Science University, School of Medicine*
2:45-3:00pm	Coffee Break	
3:00-4:15pm	**US Regulatory Approval of Modern Cannabinoids: The Public Health and Societal Benefits and Impact**	MODERATOR **David Kessler, MD,** *Regulatory Perspective* PANELISTS **Donald Abrams, MD,** *Clinical Perspective* **Ziva Cooper, PhD,** *Public Health Perspective* **Guest Panelist,** *Political Perspective*
4:15-4:50pm	**Cannabinoids and Tomorrow** Pipeline Update for PTSD, Psoriasis, Sleep Disorders, and Glaucoma Future Research Needs	**Harin Padma-Nathan, MD, FRCS** *Nano Life Science Inc.* **Ziva Cooper, PhD** *Columbia University*
4:50-5:00pm	**Closing Remarks**	**Harin Padma-Nathan, MD, FRCS** *Nano Life Science Inc.*